**Observation**

Inspection was undertaken at the subject property to which the following was noted:

## Observed Damage

### Roof

1. From our aerial drone inspection, we noted that the collapsed tree had directly impacted the lower sections above the Garage and Bedroom 5 and the upper roof section above the Master Bedroom Walk-In-Robe (W.I.R).
2. In saying this, damage has been sustained to sections of the timber roof framework, corrugated metal roof sheeting, guttering and downpipes, fascia boards and soffit lining which will all require removal and replacement. **Images 2 & 3**
3. Furthermore, we noted damage to air-conditioning unit and whirlybird on the lower roof, requiring removal and replacement. **Image 4**
4. On the upper roof, we noted damage to the solar pool heating system, requiring removal and replacement. **Image 5**
5. We noted no visual evidence of damage to the solar panels, however, we advise that a suitably qualified contractor will be required to undertake inspection, testing and certification.

### Garage

1. Within the Garage, we noted a section of the timber wall framework about the south-western corner had been damaged by the tree impact, requiring removal and replacement inclusive of attached internal and external linings. **Image 6**
2. Similarly, the damaged section of timber roof framework and ceiling lining will also require removal and replacement. **Image 7**
3. From our observations, we noted no visual evidence of cracking, distress or movement to the external masonry walls to indicate that damage has occurred from the tree impact. **Image 8**

### Bedroom 5

1. Within Bedroom 5, we noted water damage and swelling to the joinery within the built-in-robe (B.I.R). **Images 9 & 10**
2. We further noted blistering paint around the roof beam and plasterboard linings directly above. **Image 11**
3. In our opinion, the pattern and location of damage is consistent with water ingress through the exposed roof section as a result of the tree impact event, requiring reinstatement.

### Bedroom 5 Ensuite

1. Within the Bedroom 5 Ensuite, we noted evidence of blistering paint and water staining to the plasterboard ceiling lining.
2. In our opinion, the pattern and location of damage is consistent with water ingress through the exposed roof section as a result of the tree impact event, requiring reinstatement. **Images 12 & 13**

### Master Bedroom Walk-In-Robe

1. Within the Master Bedroom W.I.R, we noted water staining to the plasterboard ceiling lining. **Image 14**
2. the pattern and location of damage is consistent with water ingress through the exposed roof section as a result of the tree impact event, requiring reinstatement.

## Make-Safe Works

1. From our inspection and assessment, in our opinion, the property is not currently at risk of imminent collapse.
2. However, in further mitigating risk of damage and water ingress, we advise that the following make-safe works should be administered immediately:
   1. Installation of temporary propping to the damaged roof framework section within the Garage.
   2. Installation of weatherproof tarpaulin over the exposed section of wall/roof within the Garage, inclusive of adequate tie-down provisions.
   3. Installation of weatherproof tarpaulin over the exposed section of roof over the Master Bedroom W.I.R, inclusive of adequate tie-down provisions.
   4. Removal of all tree debris from the roof.

## Further Damage Claimed by Insured

1. At the time of our inspection, the Insured had indicated further various areas of damage to which they opine had occurred as a result of the experienced tree impact.
2. In illustrating the locations of claimed damage, annotated floor plans have been provided in ***Appendix A***.

### Item 1 – Entry Pavers

1. The Insured has that claimed cracking along the grout joint within the external entry pavers has occurred as a result of the experienced tree impact event. **Image 15**
2. From our observations, we noted that the pavers had been installed directly abutting the external walls of the dwelling.
3. In accordance with *AS 3727.1:2016 – Residential pavements,* isolation joints should be provided where a pavement adjoins a building or other rigid structure.
4. In absence of the above, the differential thermal expansion between the abutting building materials has induced cracking into the brittle grout joint over time.

### Item 2 – Rear Sandstone Steps

1. The Insured has claimed that the rear entry sandstone steps have shifted as a result of the experienced tree impact event. **Image 16**
2. Given the significant distance away from the location of impact, in our opinion, such movement is not consistent with the experienced tree collapse.
3. In our opinion, given the absence of any positive connection between the sandstone steps and adjoining deck structure, the steps act as an independent element which is susceptible to movement from external influence such as foot traffic and over time.

### Item 3 – Entry Hallway Ceiling Lining

1. The Insured has claimed that cracking has occurred to the plasterboard ceiling lining within the Entry Hallway, about the base of the staircase, as a result of the experienced tree impact event. **Image 17**
2. We noted that the hairline crack has occurred along the butt joint between adjacent plasterboard sheets, in proximity to the change in direction of the sheet layout.
3. With reference to the *Gyprock - The Red Book/USG Boral Plasterboard Installation Manual 2016/Gyprock Residential Installation Guide*, expansion (control) joints should be installed at changes in direction within the plasterboard sheet layout to accommodate for movement or alterations in ambient conditions.
4. In absence of such control joint provisions, differential thermal movement between the plasterboard sheets has induced cracking along the weak planes over time.
5. Notwithstanding the above, given the absence of cracking within Bedroom 5 which is in closer proximity to the tree impact location, the claimed cracking damage is not consistent with the tree collapse event.

### Item 4 – Lounge/Kitchen Ceiling Lining

1. The Insured has claimed that cracking has occurred to the plasterboard ceiling lining within the Lounge and Kitchen as a result of the experienced tree impact event. **Images 18 – 21**
2. From our inspection, we noted that the claimed cracking has occurred along the apex of the vaulted plasterboard ceiling, including the junction of the roof rafters.
3. Given the vaulted configuration of the ceiling, we advise that the apex is inherently a location of high stress concentration, to which cracking and movement will always be expected to occur.
4. Notwithstanding the above, given the consistent pattern of considerable distance away from the location of impact, such movement is not consistent with the experienced tree collapse event.

### Item 5 – Family Room Bi-Fold Doors

1. The Insured has claimed that the bi-fold doors within the Family Room have jammed as a result of the experienced tree impact event. **Image 22**
2. Notwithstanding the considerable distance away from the location of impact, we noted no evidence of cracking, distress or movement to the surrounding floor, walls or ceiling to indicate that the door framework has been adversely affected by the tree collapse.
3. Given the considerable span of the door opening, in our opinion, long-term deflection of the lintel would be expected to have occurred, to which the smooth operation of the door has been progressively compromised over time.

### Item 6 – First Floor Deck

1. The Insured has claimed that cracking to the First Floor Deck soffit lining has occurred as a result of the experienced tree impact event, occurring around the steel post penetration. **Image 23**
2. Moreover, the Insured has claimed that the southern roof beam has sustained movement as a result of the experienced tree impact event, to which minor gaps are evident between the beam and surrounding timber moulding. **Image 24**
3. In our opinion, the observed cracking and movement appear consistent with differential thermal movement between the abutting building materials which is expected from cyclic and seasonal changes in temperatures over time, in absence of any gaps or expansion joint provisions.
4. Notwithstanding the above, we noted evidence of debris build up within and over the cracks which is indicative of pre-existing and aged origin.
5. On the basis of the above, in our opinion, the claimed movement is unrelated to the tree impact or any other insurable event.
6. To this end, in our opinion, the abovementioned areas of damage claimed by the Insured are attributable to inherent building issues and are unrelated to the tree impact or any other insurable event.
7. Notwithstanding the above, we advise that the claimed damage is not demeaning to the structural integrity of the property and can each be locally repaired accordingly.

**Discussion**

NA

**Conclusion**

## Observed Damage

From our inspection and assessment, we advise that the following building elements have sustained damage as a result of the tree impact event:

* ***Roof***
  + Corrugated metal roof sheeting
  + Air-conditioning unit (Lower Roof)
  + Whirlybird (Lower Roof)
  + Eaves guttering and downpipe
  + Fascia boards
  + Solar pool heating system (Upper Roof) (Solar panels will require inspection, testing and certification by a suitably qualified contractor)
* ***Garage***
  + Timber roof and wall framework
  + FC sheet ceiling lining
  + Internal and external FC sheet wall lining
* ***Bedroom 5***
  + Water damage to B.I.R joinery
  + Blistering paint to plasterboard linings above
* ***Bedroom 5 Ensuite***
  + Water staining to plasterboard ceiling lining
* ***Master Bedroom W.I.R***
  + Water staining to plasterboard ceiling lining

From our inspection and assessment, in our opinion, **the property is not currently at risk of imminent collapse.**

However, in further mitigating risk of damage and water ingress, we advise that Make-Safe Works should be administered immediately, which have been detailed within the following section of this Report.

## Further Damage Claimed by Insured

At the time of our inspection, the Insured had indicated further various areas of damage to which they opine had occurred as a result of the experienced tree impact.

We provide the following table which outlines our assessment and qualifications of the claimed damage.

| ***Claimed Damage*** | ***Proximate Causation*** | ***Related to Tree Impact or Any Other Insurable Event?*** |
| --- | --- | --- |
| Cracking along the grout joint within the external entry pavers | Omission of isolation joint between pavers and abutting structure, to which cracking has been induced onto the brittle grout joint through differential thermal movement. | No |
| Movement to rear entry sandstone steps | In absence of any positive connection between the sandstone steps and adjoining deck structure, the steps act as an independent element which is susceptible to movement from external influence such as foot traffic and over time. | No |
| Hairline cracking to plasterboard ceiling lining within Entry Hallway, occurring along the butt joint between adjacent plasterboard sheets | With reference to the *Gyprock - The Red Book/USG Boral Plasterboard Installation Manual 2016/Gyprock Residential Installation Guide*, expansion (control) joints should be installed at changes in direction within the plasterboard sheet layout to accommodate for movement or alterations in ambient conditions.  In absence of such control joint provisions, differential thermal movement between the plasterboard sheets has induced cracking along the weak planes over time. | No |
| Cracking along the apex of the vaulted plasterboard ceiling lining, including at the junction of the roof rafters | Given the vaulted configuration of the ceiling, we advise that the apex is inherently a location of high stress concentration, to which cracking and movement will always be expected to occur. | No |
| Jammed bi-fold doors within Family Room | Given the considerable span of the door opening, in our opinion, long-term deflection of the lintel would be expected to have occurred, to which the smooth operation of the door has been progressively compromised over time. | No |
| Cracking to the soffit lining around the steel post penetration on the First Floor Deck and minor gaps between the timber roof beam and surrounding moulding | The observed cracking and movement appear consistent with differential thermal movement between the abutting building materials which is expected from cyclic and seasonal changes in temperatures over time, in absence of any gaps or expansion joint provisions.  Notwithstanding the above, we noted evidence of debris build up within and over the cracks which is indicative of pre-existing and aged origin. | No |

Furthermore, given the considerable distances away from the location of impact, as highlighted in ***Appendix A***, such claimed damage is not consistent with the experienced tree collapse event.

To this end, in our opinion, the abovementioned areas of **damage claimed by the Insured are attributable to inherent building issues and are unrelated to the tree impact or any other insurable event.**

Notwithstanding the above, we advise that the **claimed damage is not demeaning to the structural integrity of the property and can each be locally repaired accordingly.**